RAW SEQUENCE LISTING          DATE: 12/12/2001
PATENT APPLICATION:  US/10/005,907          TIME: 14:16:02

Input Set : A:\ES.txt
Output Set: N:\CRF3\12112001\I005907.raw

ENTERED

```
 3 <110> APPLICANT: Union Chimique Belge, S.A.
 4         Nocka, Karl
 5         Pirozzi, Gregory
 6         Einstein, Richard
 8 <120> TITLE OF INVENTION: NOVEL GENES ASSOCIATED WITH ALLERGIC HYPERSENSITIVITY AND
MAST CELL
 9         ACTIVATION
11 <130> FILE REFERENCE: 053529-5005
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/005,907
C--> 13 <141> CURRENT FILING DATE: 2001-12-07
13 <160> NUMBER OF SEQ ID NOS: 13
15 <170> SOFTWARE: PatentIn version 3.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 3762
19 <212> TYPE: DNA
20 <213> ORGANISM: Homo sapiens
22 <220> FEATURE:
23 <221> NAME/KEY: CDS
24 <222> LOCATION: (25)..(432)
25 <223> OTHER INFORMATION:
28 <400> SEQUENCE: 1
29 gagaaaccga gtcactgtga aaag atg gga aat tat ctc ctg cga aaa ctc          51
30                               Met Gly Asn Tyr Leu Leu Arg Lys Leu
31                               1               5
33 agt tgc ctg gga gag aat caa aag aag ccc aag aaa gga aac cca gat          99
34 Ser Cys Leu Gly Glu Asn Gln Lys Lys Pro Lys Lys Gly Asn Pro Asp
35 10              15                  20                  25
37 gag gaa aga aaa cgg cag gaa atg act aca ttt gaa aga aaa ctt caa        147
38 Glu Glu Arg Lys Arg Gln Glu Met Thr Thr Phe Glu Arg Lys Leu Gln
39              30                  35                  40
41 gat caa gat aag aaa agc caa gaa gtt tca tcc act tct aat cag gaa        195
42 Asp Gln Asp Lys Lys Ser Gln Glu Val Ser Ser Thr Ser Asn Gln Glu
43              45                  50                  55
45 aac gag aat ggc agt ggt tct gaa gaa gtg tgc tac act gtc att aat        243
46 Asn Glu Asn Gly Ser Gly Ser Glu Glu Val Cys Tyr Thr Val Ile Asn
47          60                  65                  70
49 cac atc ccc cat cag aga tcc tcc ctg agc tcc aat gat gat ggc tat        291
50 His Ile Pro His Gln Arg Ser Ser Leu Ser Ser Asn Asp Asp Gly Tyr
51      75                  80                  85
53 gag aac att gac tcc ctc aca agg aaa gtg aga cag ttt aga gaa agg        339
54 Glu Asn Ile Asp Ser Leu Thr Arg Lys Val Arg Gln Phe Arg Glu Arg
55 90                  95                  100                 105
57 tca gag aca gaa tat gcc ctt ctt agg act tct gtt agt agg cct tgt        387
58 Ser Glu Thr Glu Tyr Ala Leu Leu Arg Thr Ser Val Ser Arg Pro Cys
59              110                 115                 120
61 tcc tgc acc cat gag cat gat tat gaa gtt gtg ttt cca cac taa          432
62 Ser Cys Thr His Glu His Asp Tyr Glu Val Val Phe Pro His
63              125                 130                 135
```

RAW SEQUENCE LISTING                    DATE: 12/12/2001
PATENT APPLICATION:  US/10/005,907      TIME: 14:16:02

Input Set : A:\ES.txt
Output Set: N:\CRF3\12112001\I005907.raw

```
 65 aatcctcaag ctgctttatc accttccagc aatgaagaca atgcagaata gcagactctg   492
 67 gcgaagttgt tcaccctgag cagtgcatga aacattcctt tctggctaaa gtttagaaat   552
 69 attatcttat tatatatcct taggcaactc tgatatgtgg catctctgtg gcttaggtga   612
 71 aatcatagaa attgacacaa tgacctaaaa tattctatgt gttttttgctt gtaaagtttg   672
 73 aggacatgga ggtgataaaa aaaactttct taggacaata atgtaaaatg aaaataaatt   732
 75 tctaatcccc ctgactaact gaatggaccc tcttctaggc caaagagacc tcagatgaac   792
 77 ctgaaagact gaattctggc catgatagga agggaggtga gacacacctt gttataccc   852
 79 ttccctttg gagtttatgc acaagtgacc aggatgagtc ataagactga tgaaatagac   912
 81 tgattgtggc aataagagtc ccaattccaa cctgactctg gtgtagatca cacactgtct   972
 83 gagggattcc atctatgaga ctttgtctac ataacagaga ccttggtttc cacaaccct  1032
 85 ttattttagc taaagcattc ttttctactg acttcttaag tctttagaca aagcttaact  1092
 87 ctttcaacca attgccaatc agacaaactt tgaatctacc tatgacctgt aagctctctc  1152
 89 ctgcttcaag atcttgcctc tttaagctga accgatgtgc actttccatt taatgattta  1212
 91 tgtctttgct tgtaactcct gtctccctaa aatgtataaa agtaaacggt gacctgacca  1272
 93 cctcaggcac actttctcag gacctcctga gagtgtatcc caggccatgg taagtcatgt  1332
 95 tggctcagaa tcaacctctt taaatatttt acagaatttg ggttttggtt accaataagt  1392
 97 ctccacaaat atatgtccaa gaatcttcaa ttccaagcct gctcaccaaa tttcaaatgc  1452
 99 caacatctcc ccatccaatt acctatttca tctttgaggt gtaatctact caataaactg  1512
101 tgtaagacca gtgaccagac cctttgctaa cctgacattt acttcaattt ttctttttct  1572
103 atgtactgga tatttttgca tataaacttg cagtaatagt tcaaaaatta atagttttg  1632
105 acattggctt ttctgagaag agaaattgaa agtgtcacaa aataaaaaaa gatgaaatga  1692
107 agcatatata attgtcaatt ttttcaattt tctagtcaac agagaatcga aggattctgt  1752
109 tcaaatatta gtaaaaattg aaaataaact tgtgcttata ttttgtttgc aacacactag  1812
111 ttaatttaac ctgtgactag ttatctctac cgaaggtgga tgtgtagttt ctggttttaa  1872
113 aattcaagca aactggaaaa taatccatct aattatgctt tctttcccaa gaagtttttt  1932
115 aatgatatgc cagcttccta atttggagac aaaagcctta attgacaatg cattcattat  1992
117 atattttttt gtatagttac agtatacgag ttgagtatcc cttagatgag atgcttggga  2052
119 ccagaagtgt tttggatttc agatttattt ttggattttg gaatatttcc atacatataa  2112
121 tgagagagtt ggaaaatggg attcaagtct aatcataaaa ttcacttatg tttgatatac  2172
123 accttatctg aatagcctga aggtaatttt atacaatatt ttaaataatt ttatgcctga  2232
125 aacagagttt gcgcacattg gaccatcaga aagcagaagt gtcactattt caagtcagtg  2292
127 ctcaaaaagt ttcagatgtt aagctggtga tgcagttcat gccagtgatc cgagtacttt  2352
129 gggaagccaa gacaggtgga tctcttgagc ccaggagttt gaggccagac tgcacaacac  2412
131 agtgagacct cgtttctaca aataattaaa aaattagcca ggtgtggtgg tgcacacctg  2472
133 tagtcccagg tactcaggag gctgaggtag taggattgtt tgagactggg aggttgaggc  2532
135 tgaactgagc caggatcttg ccaccacatt ccagcttggg caacagagtg agaccctgtc  2592
137 tcaaaaaaaa aaaaagttt cagatttgg agcatttcag atcttcagat tagggatttt  2652
139 caacctgtac tgacctttta gtcattgaca agcattaatc aataggtgga ctccagataa  2712
141 ctcatttgct gtatacacat tttgcctctc tattcaacga attcttatgc cctcttgtgg  2772
143 tgattttaat gtgcggaagg gaaacaatag aaattttgca attctagaaa agtcattctg  2832
145 tcaaaatatg tcagtcctgt agatattagc caattttagg aaaatgacaa aatttttac  2892
147 ttttcgtctg cctttgtagc tgtttttatga tataaatacc ttatttgtaa taaaattaat  2952
149 tttaatttga gtaacaatct ggaattatca gagaaggggc aagcaatagg ttaataaaca  3012
151 gtattgattg gtagaaggaa cgttgaaatc caagagcatc aatgtcttct ggtggttcac  3072
153 cataagccac agcagatgtc ttaatctttc cgagatctag tttttcagca aagcaggatt  3132
155 taagaaatgt aactatctta tgtggttatg aagaacaata gaatcattgc tgtataagtg  3192
157 cttttttaacc tgtaaatttt gtgaagctta tcttttatgc atataaatat ttgaacattt  3252
159 tacattgttt atatttttaa tcagtttttac tcaagtgtga ttatatacaa gaaaatgtaa  3312
161 ccactgtaag ggtagagtta taagaatttt gtcaaatgta ttcacccatg tagtcacctc  3372
```

Input Set : **A:\ES.txt**
Output Set: **N:\CRF3\12112001\I005907.raw**

```
163 cttatgaaga gacagaacac gtacatcctc ccagaaagtt ccacagtgct cctttcct    3432
165 gagtttcacc agtcctggca accaatgatc tgcttcgtat aattataact gttctagata    3492
167 tttgtagcaa tgtacccttt ccatatttat tttgtgtgtg taaggcttct tttagtcatt    3552
169 ataatatttt tgagattcat ctatgtttaa tgttctatca gtagttgtac atcttacttg    3612
171 tctcagcata tcaccatata gatatactat aatttgttaa tctaatcact gatggatatg    3672
173 taggatattt aagtttttga cattatgaat aaagtggcta taaatgaaaa aaaaaaaaa     3732
175 aaaaaaaaaa aaaaaaaaaa aaaaaaaaa                                      3762
```

178 <210> SEQ ID NO: 2
179 <211> LENGTH: 135
180 <212> TYPE: PRT
181 <213> ORGANISM: Homo sapiens
183 <400> SEQUENCE: 2

```
185 Met Gly Asn Tyr Leu Leu Arg Lys Leu Ser Cys Leu Gly Glu Asn Gln
186  1               5                  10                  15
189 Lys Lys Pro Lys Lys Gly Asn Pro Asp Glu Glu Arg Lys Arg Gln Glu
190              20                  25                  30
193 Met Thr Thr Phe Glu Arg Lys Leu Gln Asp Gln Asp Lys Lys Ser Gln
194          35                  40                  45
197 Glu Val Ser Ser Thr Ser Asn Gln Glu Asn Glu Asn Gly Ser Gly Ser
198      50                  55                  60
201 Glu Glu Val Cys Tyr Thr Val Ile Asn His Ile Pro His Gln Arg Ser
202 65                  70                  75                  80
205 Ser Leu Ser Ser Asn Asp Asp Gly Tyr Glu Asn Ile Asp Ser Leu Thr
206                  85                  90                  95
209 Arg Lys Val Arg Gln Phe Arg Glu Arg Ser Glu Thr Glu Tyr Ala Leu
210              100                 105                 110
213 Leu Arg Thr Ser Val Ser Arg Pro Cys Ser Cys Thr His Glu His Asp
214          115                 120                 125
217 Tyr Glu Val Val Phe Pro His
218      130                 135
```

221 <210> SEQ ID NO: 3
222 <211> LENGTH: 3663
223 <212> TYPE: DNA
224 <213> ORGANISM: Homo sapiens
226 <220> FEATURE:
227 <221> NAME/KEY: CDS
228 <222> LOCATION: (294)..(746)
229 <223> OTHER INFORMATION: First ORF
232 <220> FEATURE:
233 <221> NAME/KEY: CDS
234 <222> LOCATION: (1238)..(2218)
235 <223> OTHER INFORMATION: Second ORF
238 <400> SEQUENCE: 3

```
239 cccacgcgtc cggaaccagc ctgcacgcgc tggctccggg tgacagccgc gcgcctcggc      60
241 caggatctga gtgatgagac gtgtccccac tgaggtgccc cacagcagca ggtgttgagc     120
243 atgggctgag aagctggacc ggcaccaaag ggctggcaga aatgggcgcc tggctgattc     180
245 ctaggcagtt ggcggcagca aggaggagag gccgcagctt ctggagcaga gccgagacga     240
247 agcagttctg gagtgcctga cggccccct gagccctacc cgcctggccc act atg        296
248                                                              Met
```

RAW SEQUENCE LISTING                    DATE: 12/12/2001
PATENT APPLICATION:   US/10/005,907    TIME: 14:16:02

Input Set : A:\ES.txt
Output Set: N:\CRF3\12112001\I005907.raw

```
249                                                                    1
251 gtc cag agg ctg tgg gtg agc cgc ctg ctg cgg cac cgg aaa gcc cag    344
252 Val Gln Arg Leu Trp Val Ser Arg Leu Leu Arg His Arg Lys Ala Gln
253         5                   10                  15
255 ctc ttg ctg gtc aac ctg cta acc ttt ggc ctg gag gtg tgt ttg gcc    392
256 Leu Leu Leu Val Asn Leu Leu Thr Phe Gly Leu Glu Val Cys Leu Ala
257         20                  25                  30
259 gca ggc atc acc tat gtg ccg cct ctg ctg ctg gaa gtg ggg gta gag    440
260 Ala Gly Ile Thr Tyr Val Pro Pro Leu Leu Leu Glu Val Gly Val Glu
261         35                  40                  45
263 gag aag ttc atg acc atg gtg ctg ggt gag tca cta cat cct cct tcc    488
264 Glu Lys Phe Met Thr Met Val Leu Gly Glu Ser Leu His Pro Pro Ser
265 50                  55                  60                  65
267 ttc ctg ttc cag ata cat gcc acc tgg cat gtg gga cag gag tac ctc    536
268 Phe Leu Phe Gln Ile His Ala Thr Trp His Val Gly Gln Glu Tyr Leu
269                 70                  75                  80
271 tgc cct ggg agc tgc ttg gag gga gag gtg gtc tgc tgg gaa ggc att    584
272 Cys Pro Gly Ser Cys Leu Glu Gly Glu Val Val Cys Trp Glu Gly Ile
273                 85                  90                  95
275 gct ggg cag gag ggt gac cct ggg ctg agg ggg cac acc aag aga aag    632
276 Ala Gly Gln Glu Gly Asp Pro Gly Leu Arg Gly His Thr Lys Arg Lys
277         100                 105                 110
279 aag aga ata cca agg aca tac ccc agt cac ctc tgg atc cct ggt cct    680
280 Lys Arg Ile Pro Arg Thr Tyr Pro Ser His Leu Trp Ile Pro Gly Pro
281         115                 120                 125
283 gca cag agc ctg gct cat agg aga cac tgg aga aat gct cct aac ctt    728
284 Ala Gln Ser Leu Ala His Arg Arg His Trp Arg Asn Ala Pro Asn Leu
285 130                 135                 140                 145
287 tgg cta gcc ctt tta taa tttatagcga ttatctcatt taatgcttac          776
288 Trp Leu Ala Leu Leu
289                 150
291 aaccaccatt tgaggtgatc cattttacag agaaggaagc agaggctttt aagaggttag   836
293 gtaagtctta gccaaagcca aatagcagct gaacagtaga gctgggactc catcaaggtc   896
295 tcccagccgg agcttgctcc taccccctagg caaggggtg gactcctgac tctgcagata   956
297 aattctacaa aagccacaga aggcaagtag taaccattgt gtgacaaccc ctcacccca   1016
299 ggaagagggg cccctgtgag gattgcaggc tctggagtca cactgcttgt tgaaacgctg  1076
301 cctcttaccc tccctaggtc tgcgcctttg aataagtatc acttcttagt tgctccatgc  1136
303 ctcagtttgt ccatctgaaa atgggggcat ctgtaatgcc tgtgttatga ggagtaaatt  1196
305 acagcatccc tgtgaagacg tagcacagtg tcgagtacgg a atg tta ttt cca tcc  1252
306                                              Met Leu Phe Pro Ser
307                                                              155
309 ttc tca cgg agc ttg gtt ccc ctt ccc ctt gcc ctt tac ttg tcc cag   1300
310 Phe Ser Arg Ser Leu Val Pro Leu Pro Leu Ala Leu Tyr Leu Ser Gln
311                 160                 165                 170
313 cca ttg act cat act act tcc ctt ctt gca ggc att ggt cca gtg ctg   1348
314 Pro Leu Thr His Thr Thr Ser Leu Leu Ala Gly Ile Gly Pro Val Leu
315                 175                 180                 185
317 ggc ctg gtc tgt gtc ccg ctc cta ggc tca gcc agt gac cac tgg cgt   1396
318 Gly Leu Val Cys Val Pro Leu Leu Gly Ser Ala Ser Asp His Trp Arg
```
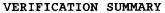
RAW SEQUENCE LISTING                    DATE: 12/12/2001
PATENT APPLICATION:  US/10/005,907      TIME: 14:16:02

Input Set : A:\ES.txt
Output Set: N:\CRF3\12112001\I005907.raw

```
319        190                195                200
321 gga cgc tat ggc cgc cgc cgg ccc ttc atc tgg gca ctg tcc ttg ggc   1444
322 Gly Arg Tyr Gly Arg Arg Arg Pro Phe Ile Trp Ala Leu Ser Leu Gly
323        205                210                215
325 atc ctg ctg agc ctc ttt ctc atc cca agg gcc ggc tgg cta gca ggg   1492
326 Ile Leu Leu Ser Leu Phe Leu Ile Pro Arg Ala Gly Trp Leu Ala Gly
327 220                225                230                    235
329 ctg ctg tgc ccg gat ccc agg ccc ctg gag ctg gca ctg ctc atc ctg   1540
330 Leu Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu Ala Leu Leu Ile Leu
331                240                245                250
333 ggc gtg ggg ctg ctg gac ttc tgt ggc cag gtg tgc ttc act cca ctg   1588
334 Gly Val Gly Leu Leu Asp Phe Cys Gly Gln Val Cys Phe Thr Pro Leu
335                255                260                265
337 gag gcc ctg ctc tct gac ctc ttc cgg gac ccg gac cac tgt cgc cag   1636
338 Glu Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro Asp His Cys Arg Gln
339        270                275                280
341 gcc tac tct gtc tat gcc ttc atg atc agt ctt ggg ggc tgc ctg ggc   1684
342 Ala Tyr Ser Val Tyr Ala Phe Met Ile Ser Leu Gly Gly Cys Leu Gly
343        285                290                295
345 tac ctc ctg cct gcc att gac tgg gac acc agt gcc ctg gcc ccc tac   1732
346 Tyr Leu Leu Pro Ala Ile Asp Trp Asp Thr Ser Ala Leu Ala Pro Tyr
347 300                305                310                    315
349 ctg ggc acc cag gag gag tgc ctc ttt ggc ctg ctc acc ctc atc ttc   1780
350 Leu Gly Thr Gln Glu Glu Cys Leu Phe Gly Leu Leu Thr Leu Ile Phe
351                320                325                330
353 ctc acc tgc gta gca gcc aca ctg ctg gtg gct gag gag gca gcg ctg   1828
354 Leu Thr Cys Val Ala Ala Thr Leu Leu Val Ala Glu Glu Ala Ala Leu
355                335                340                345
357 ggc ccc acc gag cca gca gaa ggg ctg tcg gcc ccc tcc ttg tcg ccc   1876
358 Gly Pro Thr Glu Pro Ala Glu Gly Leu Ser Ala Pro Ser Leu Ser Pro
359        350                355                360
361 cac tgc tgt cca tgc cag gcc cta agc ctg gag ctc cct tcc cta atg   1924
362 His Cys Cys Pro Cys Gln Ala Leu Ser Leu Glu Leu Pro Ser Leu Met
363        365                370                375
365 gac acg tgg gtg ctg gag gca gtg gcc tgc tcc cac ctc cac ccg cgc   1972
366 Asp Thr Trp Val Leu Glu Ala Val Ala Cys Ser His Leu His Pro Arg
367 380                385                390                    395
369 tct gcg ggg cct ctg cct gtg atg tct ccg tac gtg tgg tgg tgg gtg   2020
370 Ser Ala Gly Pro Leu Pro Val Met Ser Pro Tyr Val Trp Trp Trp Val
371                400                405                410
373 agc cca ccg agg cca ggg tgg ttc cgg gcc ggg gca tct gcc tgg acc   2068
374 Ser Pro Pro Arg Pro Gly Trp Phe Arg Ala Gly Ala Ser Ala Trp Thr
375                415                420                425
377 tcg cca tcc tgg ata gtg cct tcc tgc tgt ccc agg tgg ccc cat ccc   2116
378 Ser Pro Ser Trp Ile Val Pro Ser Cys Cys Pro Arg Trp Pro His Pro
379                430                435                440
381 tgt tta tgg gct cca ttg tcc agc tca gcc agt ctg tca ctg cct ata   2164
382 Cys Leu Trp Ala Pro Leu Ser Ser Ser Ala Ser Leu Ser Leu Pro Ile
383        445                450                455
```

**VERIFICATION SUMMARY**                    DATE: 12/12/2001
PATENT APPLICATION:  US/10/005,907          TIME: 14:16:03

Input Set : **A:\ES.txt**
Output Set: **N:\CRF3\12112001\I005907.raw**

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date